

WHAT IS CLAIMED IS:

1. A apparatus for automated finishing winding of a membrane section having a leading edge and a width, the apparatus comprising:

at least one motorized pull roll for feeding the membrane section into a finishing product winding machine;

a mandrel disposed proximal to an output region of the finishing product winding machine and adapted to receive a core;

an-automated adhesive applicator configured for traversing at least a portion of the length of the core parallel to the axis thereof to apply an adhesive material to the core;

and

a guide to index the leading edge of the membrane section to the core.
2. The apparatus of claim 1, wherein the automated adhesive applicator is electronically controlled.
3. The apparatus of claim 2, wherein electronic control is provided by one or more controllers selected from the group consisting of ASICs, microprocessors, and computers.
4. The apparatus of claim 1, further comprising:

a cutting device attached to an arm and configured for traversing the width of the membrane section; and

an electronic controller to control the cutting device.
5. The apparatus of claim 4, wherein the adhesive applicator is coupled to the arm.

6. The apparatus of claim 1, wherein the membrane section is a waterproofing membrane sheet having a width of at least 2 meters.
7. The apparatus of claim 6, wherein the waterproofing membrane sheet comprises:
 - a) a layer of modified asphalt;
 - b) a first polymer sheet disposed below the layer of modified asphalt; and
 - c) a second polymer sheet disposed above the layer of modified asphalt.
8. A process for automatically winding a waterproofing membrane section having a leading edge and a width, comprising:

feeding the waterproofing membrane section into a finishing product winding machine;

automatically controlling an adhesive dispenser located adjacent an output region of the finishing product winding machine such that the adhesive dispenser places an adhesive strip on a core along an axial length thereof;

guiding a first edge of the waterproofing membrane to the adhesive strip on the core to couple the waterproofing membrane section to the core; and

winding the waterproofing membrane section onto the core.
9. The process of claim 8, wherein the adhesive is a fugitive adhesive glue.
10. The process of claim 8, wherein the core is a cylindrical core.
11. The process of claim 8, wherein the adhesive strip is applied in a continuous line along the axial length of the core for approximately the width of the waterproofing membrane section.

12. The process of claim 8, wherein the waterproofing membrane section is a first waterproofing membrane section, the process further comprising:
automatically controlling a cutting arm to laterally traverse the first waterproofing membrane section to make a continuous slit to separate the first section from a subsequent second waterproofing membrane section and form the first section with a slit edge; and
applying an adhesive strip to a width of the first waterproofing membrane section prior to making the continuous slit, such that the slit edge of the first waterproofing membrane section has the adhesive strip disposed thereon.
13. A process for manufacturing rolls of a waterproofing membrane having a width, comprising:
unwinding a roll of a first polymer film;
accumulating a length of the first polymer film;
feeding the first polymer film through a waterproofing material applicator whereby a waterproofing layer is applied on a top surface of the first polymer film and presents an exposed surface;
unwinding a roll of a second polymer film;
applying the second polymer film onto the exposed surface of the waterproofing layer such that the waterproofing layer is sandwiched between the first polymer film and the second polymer film to create the waterproofing membrane;
accumulating a length of the waterproofing membrane;
feeding the waterproofing membrane into a finishing product winding machine;

automatically applying an adhesive strip to a core, the core disposed adjacent an output region of the finishing product winding machine and adapted to receive and wind the waterproofing membrane;
automatically indexing the waterproofing membrane into adhesive contact with the core;
and
winding the waterproofing membrane on the core to create a roll.

14. The process of claim 13, wherein the waterproofing layer is an asphaltic layer.
15. The process of claim 14, wherein the asphalt layer comprises a polymer modified asphalt.
16. The process of claim 13, wherein the adhesive strip comprises a fugitive adhesive glue.
17. The process of claim 13, wherein the adhesive strip is applied along the core at a length that is approximately equal to the width of the waterproofing membrane.